

In the Claims:

7. Device for detecting a thread during the detection of thread ends in a suction pipe through which air flows, with a sensor mechanism comprising a transmitter and a receiver, wherein a measuring field is formed between the transmitter and receiver and the suction pipe has a curvature in the region of the measuring field, characterised in that the suction pipe (17) has an elongate recess (27) on the smaller radius of curvature, which recess is oriented in the running direction of the suction pipe (17), in that the recess (27) is outwardly curved in the wall of the suction pipe (17) and is channel-shaped, in that the transmitter and the receiver are each arranged at opposing side walls of the recess (27), in that at least the beginning of the recess (27) is located in the region of the curvature of the suction pipe (17), in that the wall of the suction pipe (17) forms the guide of the detected thread at the beginning and end of the recess (27) and the thread course of the detected thread determined by the guide is always located inside the suction pipe (17), in that the thread is tensed inside the recess (27) and the thread course inside the recess (27) crosses the measuring field (26) and is at least partly spaced apart from the bottom (30) of the recess (27).

8. Device according to claim 7, characterized in that the side walls of the recess (27) run at least virtually parallel to one another in the region of the measuring field (26).

9. Device according to claim 7, characterized in that the wall of the suction pipe (17) is closed and transparent.

10. Device according to claim 9, characterized in that polypropylene is used as the transparent material.

11. Device according to claim 7, characterized in that the recess (27) is configured such that the transition in the flow direction between the beginning of the recess (27) and reaching the full depth of the recess (27), takes place so gradually that the air flow is not, or only insubstantially, disturbed.

12. Device according to claim 7, characterized in that the recess (27) is so narrow that the movement of the thread brings about a clearing of the wall of the suction pipe (17) in the measuring field (26).